

REMARKS

Claims 1-16 and 18 are pending in this application. By this Amendment, claim 17 is canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 1-4, 7, 8, 11 and 18 are amended. The claims are amended only in response to the rejection of the claims under 35 U.S.C. §112, and not in response to a rejection of the claims over prior art. Thus, no new matter is added in the amended claims and entry of the Amendment is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration as the amendments amplify issues previously discussed throughout prosecution; (c) satisfy a requirement of form asserted in the previous Office Action; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of the amendments is thus respectfully requested.

I. Allowable Claims

The indication of allowable subject matter in claims 3-10 and 13-16 is appreciated, they being allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph and to include all of the features of their base claim and any intervening claims. Claims 3-10 and 13-16, as well as the remaining pending claims are in condition for allowance for the reasons discussed below.

II. Drawings

The drawings are objected to under 37 C.F.R. §1.83(a). Specifically, it is alleged that the chargeable storage element recited in claim 11 must be shown in the figures or the feature canceled from the claims. As claim 11 is amended, the objection to the drawings is moot.

III. Claim Rejections Under 35 U.S.C. §112

Claims 1-18 are rejected under 35 U.S.C. §112, second paragraph. Because claim 17 is canceled the rejection of that claim is moot. The remaining pending claims are amended in reply to the rejection. Accordingly, withdrawal of the rejection of claims 1-18 under 35 U.S.C. §112, second paragraph, is respectfully requested.

IV. Claim Rejections Under 35 U.S.C. §103

Claims 1, 17 and 18 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent 4,516,066 to Nowakowski in view of U.S. Patent 6,313,613 to Iwatani et al. (Iwatani). Applicant notes that the Office Action indicates that these claims are rejected under 35 U.S.C. §102(b) as being anticipated. However, because the claims are rejected over a combination of references and under the overall heading of claim rejections is under 35 U.S.C. §103, Applicant responds to the rejection of the claims based on the combination of references under 35 U.S.C. §103(a).

It is admitted in the Office Action that the primary reference in Nowakowski fails to disclose each and every feature recited in the rejected claims. Specifically, it is admitted that Nowakowski does not explicitly disclose a power supply that supplies current to excite a field winding. Applicant notes that the Office Action indicates that Iwatani does not disclose this feature. However, as the Iwatani reference is combined for such a teaching, Applicant understands that the admission is to Nowakowski. In the event Applicant's assumption is incorrect, Applicant hereby requests a new Office Action be issued setting forth a proper rejection of the claims.

To establish a *prima facie* case of obviousness, there must be some suggestion and motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings. In this case, the Office Action proposes to modify Nowakowski with the teachings of Iwatani.

The teaching or suggestion to make the claim combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant's disclosure (see MPEP §2143). In addition, if a reference's disclosure relates to the same problem as the claimed invention, that fact supports the use of the reference in an obviousness rejection. *In re Clay*, 956 F.2d 656, 659 (Fed. Cir. 1992).

There is no motivation or suggestion to make such a combination because the problems being addressed in the applied references do not relate to each other, or to the problem being addressed in this application. For example, this application seeks to overcome the problems resulting from a desire in the automotive industry to increase the amount of excitation current and simultaneously produce a more compact automotive vehicle generator having a higher output and higher efficiency generator (see page 1, line 11 – page 3, line 3 of the specification of this application).

In contrast, Nowakowski relates to a battery charging system for a dual-voltage motor vehicle electrical system where a pair of series-connected batteries are utilized to provide a voltage that corresponds to the sum of the terminal voltages of the batteries for energizing an electric cranking motor, and where one of the batteries feeds the accessory loads on the vehicle. The supplemental reference to Iwatani seeks to resolve instability in the formation of a magnetic field in a generator immediately after an engine has started, particularly during a cold period when the function of a battery is deteriorated (col. 2, lines 35-51). To address the stated problem, a generator is brought into its non-operative state by stopping the generator from being excited during a period of time starting from the period immediately prior to engine start to the period at which the engine has been started. The excitation circuit used in Iwatani is well known and comprises a single transistor 306 (i.e., a switch) and a single diode 305. Using the circuit, the excitation current that has been stopped is routed to the self-winding of the generator via a backflow path, whereby the excitation current is consumed by

the winding. As the applied references are addressing disparate problems. There is no teaching or suggestion to make the claimed combination or the reasonable expectation of success that is found in the prior art references. Rather, it appears that the Iwatani reference is combined based on Applicant's disclosure.

In making an assessment of differences between the prior art and the claimed subject matter, §103 specifically requires consideration of the claimed invention "as a whole." The "as a whole" instruction prevents evaluation of the invention on a part-by-part basis. Without this important requirement, an obviousness assessment might successfully break an invention into its component parts, then find a prior art reference corresponding to each component. This line of reasoning would import hindsight into the obviousness determination by using the invention as a road map to find its prior art components. *In re Ruiz v. AB Chance Co.*, 357 F.2d 1270, 1275 (Fed. Cir. 2004). The "as a whole" assessment of the invention requires as shown that an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combined them in the claimed manner. In other words, §103 requires some motivation or suggestion, before the invention itself to make the new combination. *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998). As the prior art references in this invention are addressing completely different problems, the references are not being considered as a whole. Rather, it appears that the references are being evaluated on a part-by-part basis in an effort to provide a component admitted as being deficient in the primary reference. Thus, the combination of Iwatani with Nowakowski is improper as it merely imports hindsight into the line of reasoning and fails to provide proper motivation or suggestion to make such a combination.

Moreover, even were such a combination made, the resulting combination would not provide the advantages of the subject matter recited in the rejected claims. For example, in

Iwatani, the excitation current that has been stopped is required to flow back to the field winding so that the current is simply consumed by the field winding. Thus, as shown in Fig. 3 of Iwatani, the circuit shown therein is equivalent to the prior art circuit shown in Fig. 1 of this application. Therefore, even were the combination made, the control apparatus recited in the claims of this application provides an improvement in the efficiency of power consumed in the excitation circuit of the generator over either Nowakowski or Iwatani, whether considered alone or in combination. Because Iwatani completely fails to disclose an improvement in the efficiency of power consumed in the excitation current of the generator, there would be no motivation or suggestion to one of ordinary skill in the art to combine the references proposed in the Office Action. Accordingly, withdrawal of the rejection of claims 1, 17 and 18 under 35 U.S.C. §103(a) is respectfully requested.

Claim 2 is rejected under 35 U.S.C. §103(a) as unpatentable over Nowakowski and Iwatani, and in view of U.S. Patent 5,780,996 to Kusase et al. (Kusase). The rejection is respectfully traversed.

Claim 2 is allowable for its dependency on independent claim 1 for the reasons discussed above, as well as for the additional features recited therein. Additionally, as Kusase fails to overcome the deficiencies of Nowakowski and Iwatani discussed regarding the rejection of claim 1, claim 2 is not obvious over the combination of references. Therefore, withdrawal of the rejection of claim 2 under 35 U.S.C. §103(a) is respectfully requested.

Claim 11 is rejected under 35 U.S.C. §103(a) as unpatentable over Nowakowski and Iwatani, and further in view of U.S. Patent 6,329,797 to Bluemel et al. (Bluemel). The rejection is respectfully traversed.

Neither Nowakowski or Iwatani, disclose or suggest the features of claim 11 as alleged in the Office Action for the reasons discussed above regarding the rejection of claim 1. Additionally, the Bluemel reference is only provided for its alleged disclosure of

reducing any current losses, and a storage element connected to a power supply in parallel.

Thus, as Bluemel fails to overcome the deficiencies of Nowakowski and Iwatani, the combination of references fails to disclose each and every feature recited in the rejected claim. Accordingly, withdrawal of the rejection of claim 11 under 35 U.S.C. §103(a) is respectfully requested.

Claim 12 is rejected under 35 U.S.C. §103(a) as unpatentable over Nowakowski, Iwatani and Bluemel, and further in view of Kusase. The rejection is respectfully traversed.

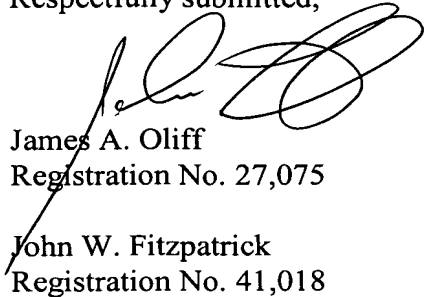
Claim 12 is allowable for at least its dependency on independent claim 11 for the reasons discussed above, as well as for the additional features recited therein. Withdrawal of the rejection of claim 12 is respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 and 18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

Date: November 8, 2005

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